

Attachment D

Alaska Department of Health and Social Services Information Technology Standards

1 Introduction

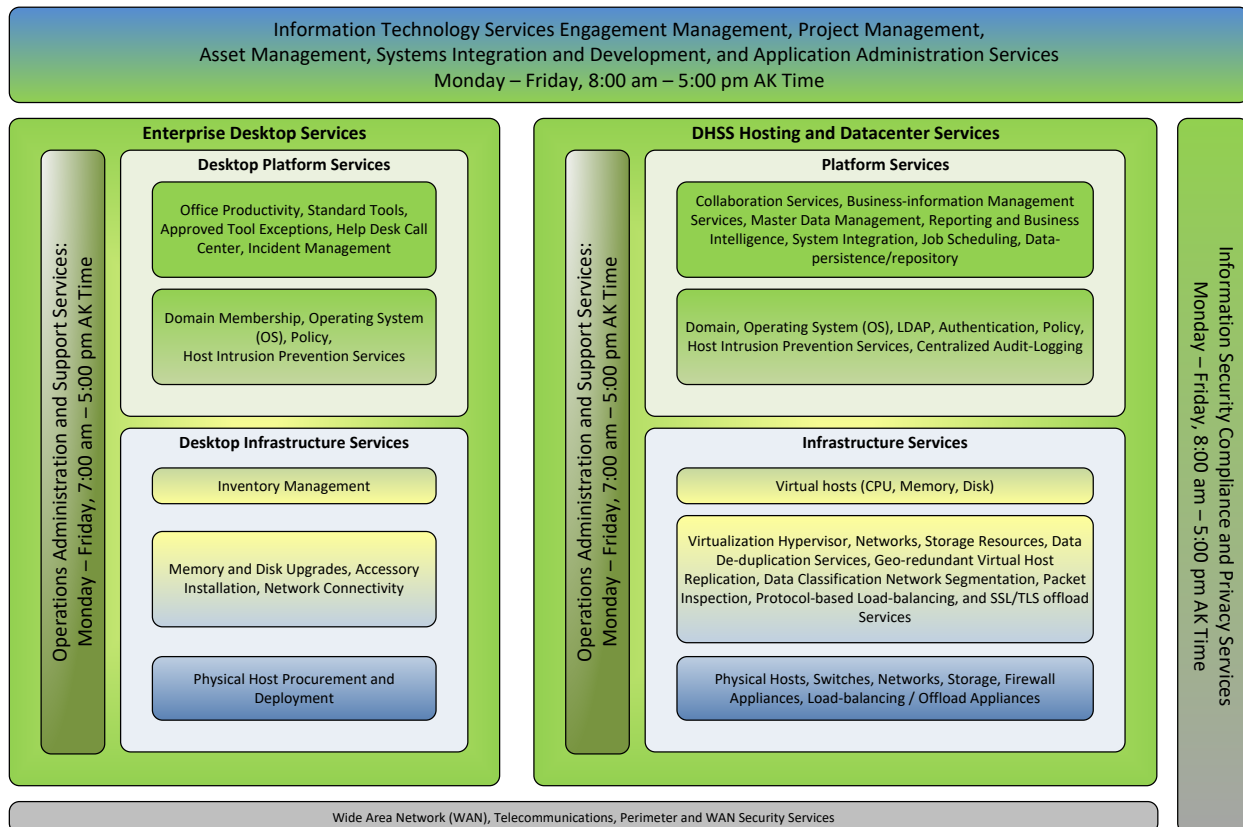
This document presents software, hardware and other Information Technology product standards for Alaska Department of Health and Social Services (DHSS). This document is a reference companion to other documents, such as the DHSS IT RFP IT Requirements template, that clarifies the current IT standards. This IT Standards document is structured according to the service-line/area for the applicable standard.

1.1 State of Alaska Statewide IT Standards

In addition to the DHSS IT Standards identified in this document, the State of Alaska Department of Administration (DOA) Division of Enterprise Technology Services (ETS) maintains IT Standards that DHSS must comply with. The ETS standards are not represented in this document, but are publicly available and can be downloaded from: http://doa.alaska.gov/ets/plan/SOA_ITStandards.pdf. Additional information on ETS standards can be found at: <http://doa.alaska.gov/ets/plan/standards.html>.

1.2 DHSS Service Lines

The DHSS following IT service lines apply:



1.3 Change Log

This document is updated as needed. The following change log reflects the person, revision date and summary of the change.

| Author | Date | Summary of change |
|----------|-----------|---|
| S Taylor | 2/10/2017 | Re-organized document, added change log |

2 Standards

This section contains the standards for each service-line. Standards are established for:

- Software
- Hardware
- Other IT products (e.g., other referenced standards)

Standards must be followed for all IT software, hardware and other products. Deviation from standards requires a completed Security Policy Waiver for each individual using the deviant product, as established by DHSS information security policies and standard operating procedure [SOP-Security Policy Wavier](#).

2.1 Engagement and Service Delivery Management Service Standards

Engagement and Service Delivery Management Services focus on how DHSS IT interacts with our DHSS customers, vendors, grantees and other partners. The following standards apply.

2.1.1 Hardware

No unique hardware standards for Engagement and Service Delivery Management Services.

2.1.2 Software

| Standard | Function | Uses |
|---|--|--|
| Microsoft SharePoint 2010 | Enterprise Content and Document Management, Intranet and Social Network, Collaboration, Custom Web Applications and Workflow | IT Matrix Inventory of initiatives (projects, systems, services), Reference document libraries |
| Microsoft Team Foundation Server 2015 | Version control, Agile project management, Continuous integration, Release management, Package mgmt., DevSecOps, Testing | Service delivery management tracking and reporting |
| PROPOSED¹ : Microsoft Visual Studio Team Services | Version control, Agile project management, Continuous integration, Release management, Package mgmt., DevSecOps, Testing | Service delivery management tracking and reporting |
| LANDesk Service Desk | Help Desk Ticketing System | Service delivery management tracking and reporting |

¹ "Proposed" standards are not fully approved, but are expected to be supported at this time.

2.1.3 Other Products

No unique other product standards for Engagement and Service Delivery Management Services.

2.2 Project Portfolio Management Service Standards

Project Portfolio Management Services focus on how DHSS IT supports project management enterprise process development and execution. The following standards apply.

2.2.1 Hardware

No unique hardware standards for Project Portfolio Management Services.

2.2.2 Software

| Standard | Function | Uses |
|--|--|---|
| Microsoft SharePoint 2010 | Enterprise Content and Document Management, Intranet and Social Network, Collaboration, Custom Web Applications and Workflow | IT Matrix Inventory of initiatives (projects, systems, services), Project management and chartering sites, Reference document libraries, activity lists |
| Microsoft Team Foundation Server 2015 | Version control, Agile project management, Continuous integration, Release management, Package mgmt., DevSecOps, Testing | Work management tracking and capacity allocation reporting |
| PROPOSED: Microsoft Visual Studio Team Services | Version control, Agile project management, Continuous integration, Release management, Package mgmt., DevSecOps, Testing | Work management tracking and capacity allocation reporting |

2.2.3 Other Products

No unique other product standards for Project Portfolio Management Services.

2.3 Asset Management Service Standards

Asset Management Services focus on how DHSS IT supports managing software licensing and other software assets. The following standards apply.

2.3.1 Hardware

No unique hardware standards for Asset Management Services.

2.3.2 Software

| Standard | Function | Uses |
|---------------------------------------|-------------------------------------|---|
| LANDesk Inventory Scanner | Software inventory scanning | Licensing support, enterprise standards enforcement |
| Microsoft Team Foundation Server 2015 | Artifact version control repository | Version control, artifact mgmt. |

| Standard | Function | Uses |
|--|--|---------------------------------|
| PROPOSED: Microsoft Visual Studio Team Services | Version control, Agile project management, Continuous integration, Release management, Package mgmt., DevSecOps, Testing | Version control, artifact mgmt. |

2.3.3 Other Products

No unique other product standards for Asset Management Services.

2.4 Systems Integration and DDI Service Standards

Systems Integration and DDI Services focus on how DHSS IT supports system architecture development, integration between DHSS systems and information system design, development and implementation. The following standards apply.

2.4.1 Hardware

No unique hardware standards for Systems Integration and DDI Services.

2.4.2 Software

| Standard | Function | Uses |
|--|--|--|
| Mainstream supported Microsoft Visual Studio | Development IDE | Information systems and software development and maintenance |
| PROPOSED: Microsoft Visual Studio Code | Development IDE | Information systems and software development and maintenance |
| Supported versions of C# language | Development language | Information systems and software development and maintenance |
| Microsoft Team Foundation Server 2015 | Work management, SDLC support | Work management, requirements definition, design, implementation and test management and execution artifacts |
| PROPOSED: Microsoft Visual Studio Team Services | Version control, Agile project management, Continuous integration, Release management, Package mgmt., DevSecOps, Testing | Work management, resource scheduling, artifact mgmt., continuous integration and deployment |
| Mainstream support versions of Microsoft Visio | Diagramming and modeling | Diagramming and modeling various architectural views |
| Microsoft PowerShell | Automation and DevSecOps | Automate various processes via PowerShell |

2.4.3 Other Products

| Standard | Function | Uses |
|--|---|--|
| PROPOSED: Microsoft Azure cloud App Service | Auto-scaling custom information system application containers in the cloud | Hosting information systems and services in the cloud |
| PROPOSED: Microsoft Azure Hybrid Connections | Websocket based relay from Azure cloud to other cloud or on premise datacenter end-points | Connecting from cloud environment resources, such as Azure App Service applications, back to on premise resources (data sources, services) |

2.5 Systems Operations and Administration Service Standards

Systems Operations and Administration Services focus on how DHSS IT supports technical system operations and system administration. The following standards apply.

2.5.1 Hardware

No unique hardware standards for System Operations and Administration Services.

2.5.2 Software

| Standard | Function | Uses |
|---|-----------------------|--|
| Microsoft Windows Remote Desktop Client | Remote desktop access | Remote server access |
| Microsoft Internet Information Services Manager | System administration | Manage IIS sites and applications |
| Microsoft SQL Server Management Studio | System administration | Manage SQL Server databases and servers |
| Microsoft BizTalk Server Administration Console | System administration | Manage BizTalk servers and server groups |
| Visionware MultiVue Administration Console | System administration | Manage MultiVue Configuration |
| Microsoft SharePoint Central Administration | System administration | Manage SharePoint site collections and farm configurations |
| Microsoft PowerShell | System administration | Manage various services via PowerShell |

2.5.3 Other Products

| Standard | Function | Uses |
|----------------------------------|--|---|
| PROPOSED: Microsoft Azure Portal | Management for all Azure resources and services allocated with a tenant subscription | Administering Azure hosted resources and services |

2.6 Information Security Compliance and Privacy Service Standards

Information Security Compliance and Privacy Services focus on how DHSS IT supports legal compliance with information security, privacy, and ongoing development/maintenance of security policy and practice. The following standards apply.

2.6.1 Hardware

No unique hardware standards for Information Security Compliance and Privacy Services.

2.6.2 Software

| Standard | Function | Uses |
|------------|--|---|
| RSA Archer | Information security risk and compliance | Risk and compliance management |
| Splunk | Enterprise log indexing and reporting | Audit-logging, reporting |
| Veracode | Software vulnerability scanning | Scan source code, identify software vulnerabilities for remediation, per policy |
| Veritas | Enterprise confidential data audit-logging | File system based access audit logging |

2.6.3 Other Products

| Standard | Function | Uses |
|----------------|---|--|
| NIST 800-53 v4 | Standardized security controls | Reference for security plan control set |
| NIST 800-66 | Standard subset of NIST 800-53 controls for HIPAA | Selection criteria for security plan control set for HIPAA systems |

2.7 Enterprise Desktop Service Standards

Enterprise Desktop and Mobility Services focus on how DHSS IT supports defining, deploying and supporting the DHSS enterprise desktop and mobility endpoints. The following standards apply.

2.7.1 Hardware

| Standard | Function | Uses |
|---|-----------------|--|
| OptiPlex with 500GB+ SSD HD, 16GB+ memory, core i7 processors | PC workstation | Desktop, non-mobile |
| Latitude with 256GB+ SSD HD, 16GB+ memory, core i7 processors | PC workstation | Desktop, mobile |
| Tablets Dell 5280 256+ SSD HD, 16GB+ memory, core i7 processors | Mobile endpoint | Productivity capable, extended use mobile device |

2.7.2 Software

| Standard | Function | Uses |
|---|---|--|
| Microsoft Systems Center Configuration Manager (SCCM) | Systems management | Desktop deployment |
| LANDesk | Systems management | Desktop software install, upgrade, patching, security scanning |
| LANDesk Service Desk | Help Desk Ticketing | Incident and service request management. Interface between customers using DHSS systems/IT services and the operational support team for those systems/IT services |
| Mainstream supported Microsoft Windows on Desktops | Desktop operating system (OS) | Standard DHSS desktop operating system |
| Dell Data Protection | Disk encryption | Fixed and removable disk encryption |
| Intel McAfee Agent | Antivirus, host intrusion prevention, policy management | Antivirus, host intrusion prevention, policy management |
| Currently Supported Microsoft Internet Explorer 11 or Microsoft Edge | Web browser and web-application client | Browsing web, web-application client |
| Microsoft Office 2010 (transitioning to Office 2013, starting Fall of 2017) | Desktop productivity suite | Document authoring, spreadsheets, presentations, information system integration (e.g., notice processing or other document merge processing) |

2.7.3 Other Products

No unique other product standards for Enterprise Desktop Services.

2.8 DHSS Hosting and Datacenter Service Standards

DHSS Hosting and Datacenter Service Standards focus on how DHSS IT supports designing, implementing and operating standard infrastructure and platform offerings. The following standards apply.

2.8.1 Hardware

| Standard | Function | Uses |
|-----------------------------|---|--|
| Cisco UCS Blade Server | Physical host | Datacenter virtualization resources |
| Dell PowerEdge Server | Physical host | Datacenter virtualization resources or remote location physical server |
| NetApp Storage Area Network | Enterprise storage | Datacenter disk storage |
| Citrix Netscaler | Load balancing, proxy, protocol optimization, SSL/TLS offload appliance | Load balancing, SSL/TLS offload |

2.8.2 Software

| Standard | Function | Uses |
|---|--|---|
| VMWare ESXi or Microsoft Hyper-V Hypervisor Virtualization | Hypervisor | Datacenter hypervisor for host virtualization |
| NFS for VMware or SMB 3.0 for Hyper-V Network Attached Storage (NAS) | Storage management protocol | Allocate/manage/use storage, printers, etc |
| iSCSI for VMware or Hyper-V Storage Area Network (SAN) | Storage management protocol | Allocate/manage/use storage |
| Mainstream supported Microsoft Windows Server | Server operating system | Access and manage server hosts |
| Mainstream supported Microsoft .NET | Underlying enterprise services platform API | Support 3 rd party and custom .NET components and services |
| PROPOSED: .NET Core | Underlying enterprise services platform API | Support 3 rd party and custom .NET Core components and services |
| Mainstream supported Microsoft Active Directory | Domain, LDAP, authentication, policy | Manage domain, LDAP, authentication (Kerberos, Integrated) and policy |
| Mainstream supported Microsoft Active Directory Federation Services | Federated authentication | Manage authentication in federated identity scenarios |
| Mainstream supported Microsoft SQL Server | Information persistence / data repository | Online Transaction Processing / Information system database storage |
| Splunk | Enterprise log indexing and reporting | Audit-logging, reporting |
| Mainstream Microsoft Internet Information Services | Application server and web content delivery | Support IIS hosted applications and content |
| Mainstream supported Microsoft SQL Server Reporting Services | Reporting and business intelligence | Report authoring, scheduling, and subscription services |
| Mainstream supported Microsoft SQL Server Analysis Services | Reporting and business intelligence | Online Analytical Processing / Information and metrics trend reporting |
| Mainstream supported Microsoft SQL Server Agent (bundled with SQL Server) | Batch job processing and scheduling | Scheduled offline batch processes for line of business systems |
| Mainstream supported Microsoft SharePoint (2010 and 2013 compatible) | Enterprise Content and Document Management, Intranet and Social Network, Collaboration, Custom Web Applications and Workflow | Collaborative self-service business productivity, including: intranet, document libraries, simple data lists and simple workflows. Approved applications. |

| Standard | Function | Uses |
|---|--|--|
| Mainstream supported Microsoft BizTalk (2010 <u>and</u> 2013 <u>and</u> 2016) | System integration, Enterprise Service Bus | Master Client Index, line of business system integration |
| Microsoft Dynamics CRM (2016) | Extensible relationship/case management, rapid design and scalable business information systems platform | Case management, registries, grants management |
| Visionware MultiVue | Master data management | Master Client Index |
| DHSS Master Client Index | Line of business system client cross-reference | System integration support, Client Services Dashboard |
| DHSS Client Services Dashboard | Client services analysis | Research and policy support |

2.8.3 Other Products

| Standard | Function | Uses |
|--|---|--|
| PROPOSED: Microsoft Azure cloud App Service | Auto-scaling custom information system application containers in the cloud | Hosting information systems and services in the cloud |
| PROPOSED: Microsoft Azure Hybrid Connections | Websocket based relay from Azure cloud to other cloud or on premise datacenter end-points | Connecting from cloud environment resources, such as Azure App Service applications, back to on premise resources (data sources, services) |

2.9 DHSS Wide Area Network, Telecommunications and Perimeter and WAN Security Service Standards

DHSS Wide Area Network, Telecommunications and Perimeter Security Services focus on how DHSS IT supports integrating the DHSS LAN with the State of Alaska (SOA) wide area network, telecommunications and perimeter security managed by Department of Administration (DOA) Enterprise Technology Services (ETS). The following standards apply.

2.9.1 Hardware

No unique hardware standards for DHSS Wide Area Network, Telecommunications and Perimeter Security Services.

2.9.2 Software

| Standard | Function | Uses |
|----------------------------|--|--|
| Service Desk Manager (SDM) | Incident and service request management tracking | Interface between DHSS and ETS for addressing ETS supported service incidents and requesting changes or other services |

2.9.3 Other Products

No unique other product standards for DHSS Wide Area Network, Telecommunications and Perimeter Security Services.